ton Seminary. He then went to Europe, entered the Göttingen University, Germany, and received his diplomas of A. M. and Ph. D. with Prof. C. A. Goessmann, the noted organic chemist and director of the Massachusetts Experiment Station.

Upon his return from Germany he was elected to the chair of chemistry and botany in Amherst College, which he retained until August, 1867, when he was elected president of the Massachusetts Agricultural College. He took active part in the rebellion with the Twenty-first Massachusetts regiment as its colonel.

Colonel Clark was noted for the energy and enthusiasm he put into everything he undertook, and in the class-room he imparted this to his students to such an extent that very thorough and rapid progress was always made. During the last fifteen or twenty years of his life he made the study of plant-life his specialty, and conducted a series of very careful experiments upon the circulation of sap in plants, the expansive force of plant tissues, the movements of plants, rapidity of the movements of sap, etc., most of which are recorded in the catalogues of the Massachusetts Agricultural College and the annual reports of the secretary of the Massachusetts Board of Agriculture.

These papers, which are valuable additions to botanical literature, are perhaps his most important writings, although he was always ready with lectures upon almost all industrial and natural scientific subjects whenever called upon and was a most brilliant and fascinating speaker. In 1876 he was granted a leave of absence and established the Royal Agricultural College at Sapporo, Japan.

His many pupils look back with pleasure to the profitable days spent under his instruction, in which they always found him a true friend and wise counselor.

S. T. MAYNARD.

Tuckerman bibliography.—The following correction and additions may be made to the list on page 74 of this volume.

Notice of some Cyperaceæ of our vicinity: Hovey's Mag. of Hort. and Bot. vii. 208-210 (1841).

Descriptions of several new plants of New England: ibid, ix. 142-3 (1843). Carex argyrantha sp. nov.: distrib. with descr. Amherst, Aug. 16, 1859; published in Wood's Class-Book of Botany 1861, p. 753.

Carex glaucodea Mss.: Proc. Am. Acad. vii. 395 (1868). Lichens or fungi?: Bull. Torr. Bot. Club, vii. 66-7 (1881).

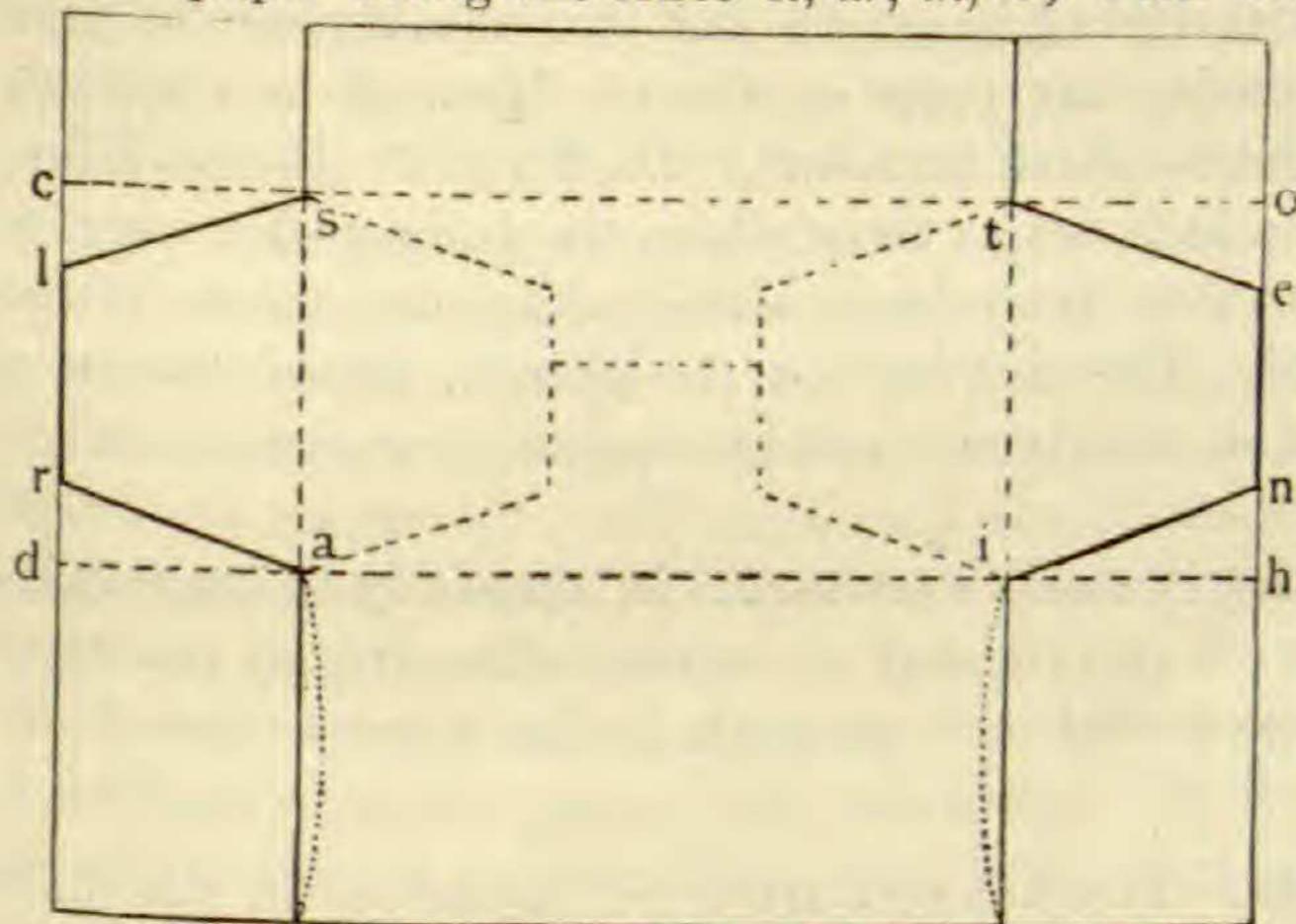
Review of Minks's Symbolæ Licheno-Mycologicæ: ibid. ix. 143 (1882).

The Synopsis of the Lichens of the Northern U. S., etc., was first published in Proc. Am. Acad. i. 195-285 (1848).—HENRY WILLEY.

Vancouveria.—In the two most recent fascicles of the Bulletin of the Botanical Society of France, M. Franchet has published an elaborate review and monograph of the genus Epimedium. Adopting Baillon's idea, he refers back to it the Pacific-coast genus Vancouveria of Decaisne, which, M. Franchet insists, differs in nothing but the ternary instead of the binary plan of the blossom. For it seems that some common species of Epimedium occasionally produce petals which are not saccate or spurred (which certainly militates

against Aceranthus), and in one the perianth is in a manner reflexed. But both Baillon and Franchet leave out of view a marked character of Vancouveria, namely, the unguiculate petals. In Vancouveria each petal consists of a long ligulate portion or claw, bearing at its summit an inflexed and bordered lamina, which is the homologue of the always sessile or basal sac of Epimedium. We recognize three forms or varieties of V. hexandra but can not make out more than one species.—A. Gray.

To make pockets.—Fold a rectangular piece of paper of desired size along the line dh and again along co; bend the folded paper over a sharp edge (e. g. a tin paper-cutter) so as to mark the points t, i, s, a; with scissors cut the folded paper along the lines sl, ar, in, te; with knife or paper-cutter cut away



POCKET FOR HERBARIUM.

the two upper layers of the folded paper along the lines ti, as, so as to leave the sheet when unfolded of the shape shown by the heavier outline. When folded into a pocket the appearance is indicated by the broken lines within asti. If the objects to be enclosed are large the lower flap must be cut away as shown by dotted line. These pockets are quickly made after a little

practice and are indispensable for fruits, seeds, flowers and smaller specimens. Directions for making a simpler, equally effective but less convenient kind will be found in the June number, p. 142.

A botanical diary.—While gathering specimens for preservation in an herbarinm, and future study, some device for recording and ready reference to them is very desirable. After trying various plans, the following form of diary was devised, and has worked so well for the fifteen years of trial, that it has become a permanent thing in the economy of the writer.

A plain blank book, of a size suitable for carrying in the pocket, is obtained. It may serve for one year, or several, according to the amount of work done, and entries made. The plants gathered and studied are numbered from 1 to the last entry for the year. At the beginning of each year of work a new numbering is commenced, the year, as a date, heading the list. Two or three lines may serve for entry, unless peculiarities are recorded. If more space is expected to be needed than is used at the time of making an entry, a page or more may be left blank for future use, or whatever is thought necessary. To illustrate, taking some cases at random from the list of 1878:

"2. Weisia viridula. On the ground in meadows, Englewood, Ill., Mar. 16, Apr. 13."

"11. Draba Caroliniana. Sandy grounds, Englewood, Apr. 13. No. 2. Petals wanting on the later racemes." (This implies that two kinds of specimens were gathered, the second being marked "11, No. 2.")